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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,329	10/21/2003	Douglas S. Beck		1389

7590

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EXAMINER

KRISHNAMURTHY, RAMESH

ART UNIT

PAPER NUMBER

3753

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/691,329

Applicant(s)

BECK, DOUGLAS S.

Examiner

Ramesh Krishnamurthy

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.135(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 7, 9 and 10 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

This office action is responsive to communications filed 02/05/2004.

**Claims 1 – 10 are pending.**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 3, 6 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Vasilev (US 6,877,524 B2).

Vasilev discloses a one-way fluid valve, comprising: a valve housing which includes fluid supply section including an entry port (82), and delivery section (downstream of (98)), the housing including a fluid chamber (88) which receives fluid entering through the supply section and which is in fluid communication with the delivery section for delivery of fluid out of the valve; a poppet member (90) positioned within the fluid chamber and free to move within the fluid chamber during operation of the valve, the poppet including a conical seating surface portion (108) and a rim portion (110) which includes passages (92) therethrough which permit flow of fluid through the poppet member; a delivery poppet seat (86) defined within the fluid chamber, which the rim portion of the poppet contacts during forward flow of fluid through the valve; and a supply poppet seat (106) defined within the fluid chamber which the seating surface portion of the poppet contacts to minimize backflow of fluid through the valve during

backflow of fluid into the fluid chamber wherein the delivery poppet seat and the supply poppet seat are defined at opposite ends of the fluid chamber.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vasilev (US 6,877,524 B2).

Vasilev discloses the claimed invention with the exception of explicitly disclosing a delivery portion having a threaded connection or a compression fitting and a tube supplying fluid to the fluid chamber.

Vasilev discloses a threaded inlet section to which is connected a suitably configured tubing for supplying fluid to the fluid chamber. At the delivery end, a suitable connecting surface is disclosed for providing desired connections.

To provide a delivery portion having a threaded connection or compression fitting and a tube supplying fluid to the fluid chamber are considered to be design expedients over those features disclosed in Vasilev in that the claimed features neither provided any new and / or unexpected results nor solve any stated problem. Furthermore, the arrangement disclosed by Vasilev would perform equally well with the claimed connecting features.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vasilev as applied to claims 1 – 3, 6 and 7 above, and further in view of Ruthven (US 1,971,659).

The patent to Vasilev discloses the claimed invention with the exception of explicitly disclosing the openings in the rim of the poppet to extend radially therein into the hollow interior of the poppet.

The patent to Ruthven discloses that it is known in the art to provide radial openings such as (14) in the rim of the poppet to extend radially therein into the hollow interior of the poppet (5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Vasilev openings in the rim of the poppet to extend radially therein into the hollow interior of the poppet, as taught by Ruthven since such an arrangement is an art-recognized equivalent to that disclosed in Vasilev and is equally effective in moving the fluid from inlet to the outlet of the valve.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vasilev as applied to claims 1 – 3, 6 and 7 above, and further in view of Callahan et al. (US 3,189,046).

The patent to Vasilev discloses the claimed invention with the exception of explicitly disclosing the supply poppet seat to comprise a softer material than that of the poppet.

The patent to Callahan et al. discloses that it is known in the art to use a poppet seat (31) that is softer than the material of the poppet, so that it deforms upon contact with the poppet, for the purpose of providing an effective seal.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Vasilev a poppet seat that is softer than the material of the poppet, so that it deforms upon contact with the poppet, for the purpose of providing an effective seal, as recognized by Callahan et al.. The functional limitation "to accommodate irregularities in the seating surface portion of the poppet" is inherent to such a seat.

7. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene L. Mancene, can be reached on (571) 272 – 4930. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 – 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 0861.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 3753

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink that reads "Ramesh Krishnamurthy". The signature is written in a cursive style with a large, stylized 'R' and a long, sweeping underline.

Ramesh Krishnamurthy, Ph.D., PE  
Primary Examiner  
Art Unit 3753